

Abstract of the Disclosure

A method and system is described for generating executable code for a computer program. A programmer creates an intentional program tree using a syntax-independent editor. The editor allows a programmer to directly manipulate the intentional program tree. The intentional program tree has nodes. Each node represents a high-level computational construct of the computer program. For each node representing a high-level computational construct, the system transforms the node into an implementation of the high-level computational construct using low-level computational constructs. For each node representing a low-level computational construct, the system generates executable code that implements the low-level computational construct. The system further provides that where a high-level computational construct has a plurality of implementations of the high-level computational construct, the system transforms the nodes by selecting one of the implementations and transforms the node in accordance with the selected implementation. The system further provides that the implementation is selected by automatically analyzing semantics of the intentional program tree.

"Express Mail" mailing label number: EL709304913US

Date of Deposit: December 5, 2000

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